

WHAT IS CLAIMED IS:

1. In a method of reducing the incidence of cracking at the shank-body junctions of hardened die blocks, the steps of

placing an electric heat source in close, operative proximity to the shank-body
5 junction of a die block to be softened,

directing the heat generated by the electric heat source only to the body-shank
portion of the die block, and

terminating the operation of the electric heat source after the body-shank portion
of the die block has been drawn.

2. The method of Claim 1 further characterized in that
the electric heat source is in abutting contact with the shank-body junction
surfaces formed in the die block.

3. The method of claim 2 further characterized in that
the thickness of the electric heat source equals the height of the shank of the die
15 block.

4. The method of claim 3 further characterized in that
the electric heat source is induction heating coils.

5. The method of claim 1 further characterized in that
the electric heat source is spaced from the body-shank portion of the die block.

20 6. The method of claim 5 further characterized in that

the electric heat source is infrared heating means.

7. The method of claim 6 further characterized in that
the infrared heating means are tungsten halogen lamps arranged to direct infrared
energy onto a defined area of a die block to be softened.

5 8. The method of claim 6 further characterized in that
the tungsten halogen lamps operate in the short wave division of the
electromagnetic spectrum.

10 9. Apparatus for reducing cracking at the body-shank junctions of a hardened die
block, said apparatus including, in combination
an electric heat source in close proximity to the body-shank junction portion of
the die block,

15 said electric heat source being arranged to direct heat to the body-shank junction
portion of the die block, and in an amount such that the body-shank portion, only, of the die
block is softened to a level at which subsequent cracking at a shank-body junction of the die
block is substantially eliminated, and

means for confining the heat from the electric heat source to the body-shank
junction portion of the die block.

10. The apparatus of claim 9 further characterized in that
the electric heat source is induction heating coil means.

20 11. The apparatus of claim 10 further characterized in that

the means for confining the induction heating currents generated by the induction heating coil means includes at least partial envelopment by non-magnetic material of those portions of the induction heating coil means which are not in operative relationship with the shank or body portion of the die block.

5 12. The apparatus of claim 11 further characterized in that

the means for confining the induction heating currents are substances selected from the group consisting essentially of non-magnetic rock, rock-type and ceramic materials which are capable of withstanding, without substantial distortion, the temperatures generated during treatment by the induction heating coil means.

10 13. The apparatus of claim 12 further characterized in that

the induction heating coil means are in abutting contact with the shank-body junction surface of a die block.

14. The apparatus of claim 13 further characterized in that

15 the thickness of the induction heating coil means equals the height of the shank of a die block.

15. The apparatus of claim 9 further characterized in that

the infrared heating means are tungsten halogen lamps.

16. The apparatus of claim 14 further characterized in that

20 the tungsten halogen lamps are spaced closely to the body-shank junction portion of the die block.

17. The apparatus of claim 15 further characterized in that the tungsten halogen lamps are arranged to operate in the short wave division of the electromagnetic spectrum.

10073386-02400